Table S1 Descriptive statistics of PSQI components in different CKD stages

Sleep parameters	Overall (n=172)	CKD					P
		G1 (n=89)	G2 (n=26)	G3 (n=21)	G4 (n=17)	G5 (n=19)	
Global score	6 [4–9]	6 [4–9]	6 [4.75–8]	7 [3.5–9]	6 [5–8]	9 [3–13]	0.91
Sleep latency							0.34
0	58 (33.7%)	29 (32.6%)	6 (23.1%)	8 (38.1%)	7 (41.2%)	8 (42.1%)	
1	58 (33.7%)	29 (32.6%)	12 (46.2%)	8 (38.1%)	7 (41.2%)	2 (10.5%)	
2	24 (14.0%)	15 (16.9%)	4 (15.4%)	1 (4.8%)	2 (11.8%)	2 (10.5%)	
3	32 (18.6%)	16 (18.0%)	4 (15.4%)	4 (19.0%)	1 (5.9%)	7 (36.8%)	
Sleep duration							0.005
0	112 (65.1%)	54 (60.7%)	20 (76.9%)	17 (81.0%)	10 (58.8%)	11 (57.9%)	
1	26 (15.1%)	18 (20.2%)	2 (7.7%)	0 (0.0%)	5 (29.4%)	1 (5.3%)	
2	17 (9.9%)	8 (9.0%)	0 (0.0%)	1 (4.8%)	2 (11.8%)	6 (31.6%)	
3	17 (9.9%)	9 (10.1%)	4 (15.4%)	3 (14.3%)	0 (0.0%)	1 (5.3%)	
Subjective sleep quality							0.18
0	25 (14.5%)	14 (15.8%)	3 (11.6%)	2 (9.5%)	1 (5.9%)	5 (26.4%)	
1	91 (52.9%)	50 (56.2%)	16 (61.5%)	9 (42.9%)	12 (70.6%)	4 (21.1%)	
2	40 (23.3)	19 (21.3%)	5 (19.2%)	8 (38.1%)	2 (11.8%)	6 (31.6%)	
3	16 (9.3%)	6 (6.7%)	2 (7.7%)	2 (9.5%)	2 (11.8%)	4 (21.1%)	
Daytime dysfunction							0.65
0	49 (28.5%)	27 (30.3%)	7 (26.9%)	8 (38.1%)	3 (17.6%)	4 (21.1%)	
1	43 (25.0%)	22 (24.7%)	6 (23.1%)	4 (19.0%)	8 (47.1%)	3 (15.8%)	
2	35 (20.3%)	19 (21.3%)	6 (23.1%)	4 (19.0%)	1 (5.9%)	5 (26.3%)	
3	45 (26.2%)	21 (23.6%)	7 (26.9%)	5 (23.8%)	5 (29.4%)	7 (36.8%)	
Sleep disturbance							0.56
0	11 (6.4%)	7 (7.9%)	1 (3.8%)	2 (9.5%)	0 (0.0%)	1 (5.3%)	
1	135 (78.5%)	70 (78.7%)	23 (88.5%)	13 (61.9%)	14 (82.4%)	15 (78.9%)	
2	26 (15.1%)	12 (13.5%)	2 (7.7%)	6 (28.6%)	3 (17.6%)	3 (15.8%)	
3	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Use of sleep medication							0.63
0	162 (94.2%)	79 (88.8%)	26 (100%)	21 (100%)	17 (100%)	19 (100%)	
1	3 (1.7%)	3 (3.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
2	4 (2.3%)	4 (4.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
3	3 (1.7%)	3 (3.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	
Sleep efficiency							0.65
0	6 (3.5%)	5 (5.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (5.3%)	
1	125 (72.7%)	62 (69.7%)	22 (84.6%)	16 (76.2%)	12 (70.6%)	13 (68.4%)	
2	11 (6.4%)	7 (7.9%)	0 (0.0%)	2 (9.5%)	2 (11.8%)	0 (0.0%)	
3	30 (17.4%)	15 (16.9%)	4 (15.4%)	3 (14.3%)	3 (17.6%)	5 (26.3%)	

Values are median [interquartile range] or proportion. P values were derived from Kruskal-Wallis test and χ^2 statistic. CKD, chronic kidney disease; G, stage.

Table S2 The correlation matrix, mean, and standard deviations of the PSQI, PHQ-9 and KDQOL-36 domains in the CKD

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
PSQI global score, 1	1													
Subjective sleep quality, 2	0.78**	1												
Sleep latency, 3	0.68**	0.49"	1											
Sleep duration, 4	0.70**	0.52**	0.39**	1										
Sleep efficiency, 5	0.64**	0.41**	0.33**	0.61**	1									
Sleep disturbance, 6	0.41**	0.37**	0.14	0.19*	0.11	1								
Use of sleep medication, 7	0.30**	0.25**	0.23**	0.29**	0.30**	-0.05	1							
Daytime dysfunction, 8	0.73**	0.47**	0.31**	0.35**	0.29**	0.30**	0.10	1						
Depression, 9	0.72**	0.54**	0.47**	0.35**	0.30**	0.36**	0.14	0.75**	1					
Symptoms and problems, 10	-0.57**	-0.45**	-0.28**	-0.29**	-0.24**	-0.37**	-0.12	-0.61**	-0.62**	1				
Effects of kidney disease, 11	-0.32**	-0.19*	-0.28**	-0.16*	-0.09	-0.08	-0.05	-0.37**	-0.45**	0.451**	1			
Burden of kidney disease, 12	-0.34**	-0.21**	-0.27**	-0.18*	-0.16*	-0.01	-0.04	-0.38**	-0.50**	0.43**	0.62**	1		
PCS, 13	-0.37**	-0.27**	-0.167*	-0.18*	-0.17*	-0.25**	-0.11	-0.46**	-0.43**	0.58**	0.49**	0.40**	1	
MCS, 14	-0.23**	-0.17*	-0.22**	-0.04	-0.04	-0.12	-0.05	-0.30**	-0.47**	0.29**	0.41**	0.45**	-0.01	1
Mean	7.34	1.28	1.04	1.20	1.26	1.28	0.14	1.62	6.50	79.85	71.46	44.38	37.39	49.06
Standard Deviations	4.15	0.93	1.12	0.45	0.83	0.93	0.57	1.16	4.51	15.93	18.06	31.50	9.38	9.60

*, $P<0.05$; **, $P<0.01$. PCS, physical component summary; MCS, mental component summary.